(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number : **0 475 916 A2**

(12) EUROPEAN PATENT APPLICATION

(21) Application number : **91830367.8**

(51) Int. Cl.[5] : **A43D 11/00,** A43D 65/00

(22) Date of filing : **05.09.91**

(30) Priority : **06.09.90 IT 211790**

(43) Date of publication of application :
18.03.92 Bulletin 92/12

(84) Designated Contracting States :
AT BE CH DE DK ES FR GB GR LI LU NL SE

(71) Applicant : **DITTA FERRARIO DARIO**
Viale de Gemmis, 11
I-70059 Trani (BA) (IT)

(71) Applicant : **F.LLI RENZI MARIO-PIERINO & C. - S.n.c.**
Via Dante Alighieri, 212
I-62012 Civitanova Marche (MC) (IT)

(72) Inventor : **Ferrario, Dario**
Viale de Gemmis, 11
I-70059 Trani (BA) (IT)

(74) Representative : **Baldi, Claudio**
Piazza Ghislieri, 3
I-60035 Jesi (Ancona) (IT)

(54) Procedure for the production of plastic footwear with counter.

(57) Procedure for producing plastic shoes with stiffener. This invention relates to a procedure for producing plastic shoes reinforced at the back with a stiffener fitted outside the quarter of the upper.

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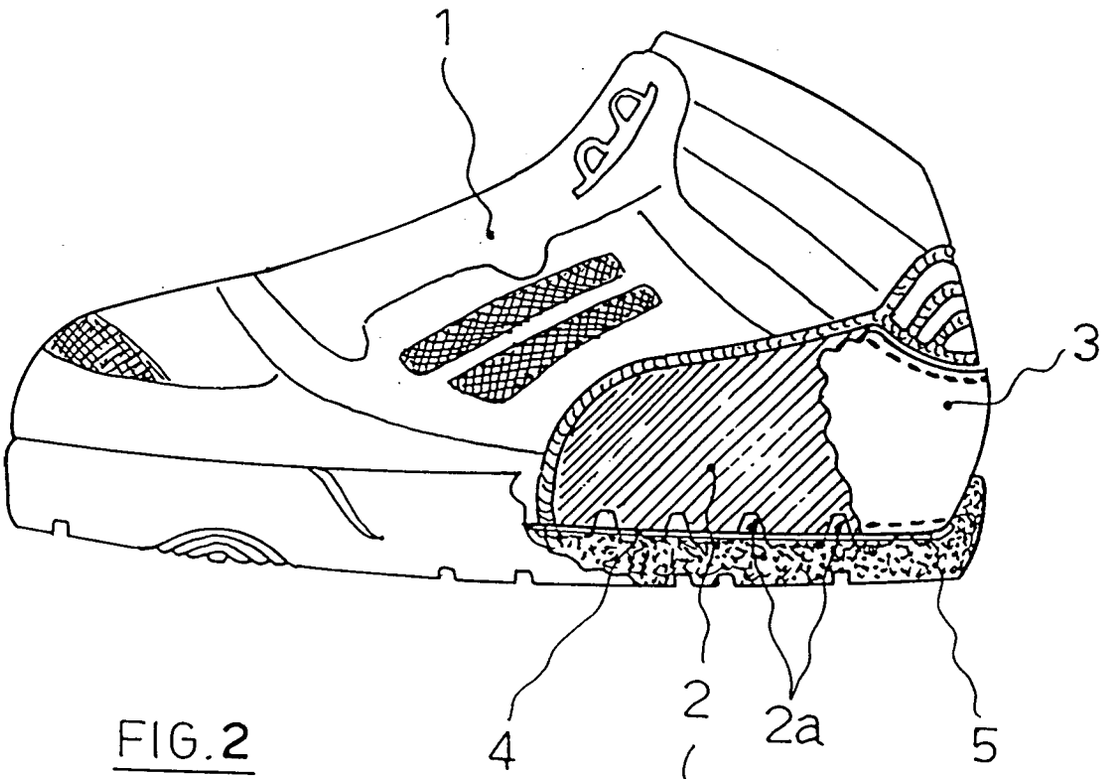
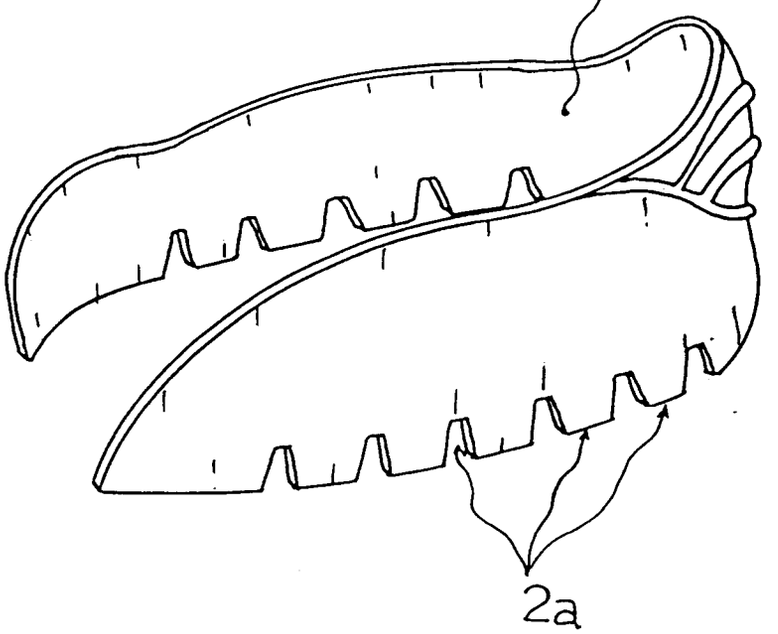


FIG.2



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This patent application concerns a procedure for producing plastic shoes with a stiffener, namely the reinforcement which is applied on the back section of the upper, known as the "quarter".

The above procedure was designed especially for producing sports or casual shoes in plastic with a rubber or plastic moulded sole.

The invention also includes shoes produced with the above procedure.

As already mentioned, the stiffener is the reinforcement insert which is applied to the curved section of the upper above the heel, against which the heel of the foot rests. This stiffener consists of a semi-rigid plate which, seen on a plane, is crescent-shaped. The stiffener is fitted under the lining and is then fixed to the internal surface of the upper.

The actual application of the stiffener into the upper makes it impossible either for the plate to be very large or for the shape to be very complicated as in the case of reinforced or orthopedic shoes, since the larger the stiffener the more difficult it is to fit and fix it under the lining of the upper, above all when the upper consists of a number of pieces which are sewn together.

The application of the stiffener inside the upper creates another problem to the foot itself, above all when the stiffener is made of a rather rigid material or when it extends to the level of the shank, since the thin lining, between the foot and the stiffener, is not in itself sufficient to pad this area of contact between the foot and the upper.

In the case of hand made shoes, these problems are overcome by using hand-sewn padded inserts made of a material which can be sewn together without the support of the lining. In the case of hand made shoes, the application of padded inserts does not complicate production excessively and production costs therefore remain substantially unaltered, contrary to the case of industrially produced shoes made of plastic on which the use of hand sewn inserts would increase the costs of production to an unacceptable extent. Moreover, the application of the stiffener inside the upper requires these to be sewn, which in the case of industrially produced shoes in plastic, would increase production times and consequently, production costs, very considerably.

In addition, the application of the stiffener inside the upper makes it impossible to use the stiffener as a decorative component.

The production procedure according to the invention has been designed to resolve all the above problems resulting from the application of the stiffener inside the upper. The main purpose of the invention is to provide a procedure which permits fitting a high quality stiffener whose size ensures sturdiness to the shoe without irritating the foot and without the need for costly padding, on shoes produced industrially in plastic.

A further scope of the invention is to reduce production costs of the above shoes by reducing the production times required to apply the stiffener to the upper.

All these purposes are attained by this invention which involves the application of the stiffener outside the upper, thereby eliminating all the problems created by fixing the stiffener inside the upper.

The procedure according to the invention is described in detail with reference to the enclosed drawings in which:

– fig. 1 is a schematic view of the sequence of the operating phases of the procedure according the invention:

– fig. 2 represents a shoe produced using the procedure according to the invention.

As illustrated in fig. 1, the procedure for producing the shoe consists of the following phases:

A) assembly of the upper (1) and sewing of its internal lining:

B) application of the stiffener (2) on the external part of the quarter (1a) of the upper, by sewing or gluing.

C) possible external covering of the stiffener (2) with a decorative strip (3);

D) sewing of the arch support (4) along the bottom edge (1b) of the upper (1) and along the bottom edge (2a) of the stiffener (2);

E) insertion of the bottom edge (1b) of the upper and of the edge (2a) of the stiffener into the mould into which the material for moulding the sole (5) is poured or injected.

As illustrated in fig. 2, the shape of the stiffener (2), allows it to hold the quarter externally as well as a part of the sides of the upper.

The stiffener is no longer limited in terms of dimensions and shape since it does not have to be fitted inside the upper and therefore does not interfere with the lining and the other internal components of the shoe. The bottom edge (2a) of the stiffener (2) has notches to facilitate coupling of the sole (5).

Since both the lining and the quarter (1a) of the upper are now between the stiffener and the foot, the stiffener no longer irritates the foot, even when the stiffener is extremely rigid or when it extends laterally to the shank. The stiffener can be made of any material, including plastic or metal.

Claims

1) A procedure for the production of plastic shoes with stiffener, characterized by the following production phases:

A) assembly of the upper (1) and sewing of its internal lining:

B) application of the stiffener (2) on the external part of the quarter (1a) of the upper (1) by stitching

or gluing;

C) possible external covering of the stiffener (2) with a decorative strip (3);

D) sewing of the arch support (4) along the bottom edge (1b) of the upper (1) and along the bottom edge (2a) of the stiffener (2);

E) insertion of the bottom edge (1b) of the upper and of the edge (2a) of the stiffener into the mould into which the material for moulding the sole (5) is poured or injected.

2) Shoes produced with the procedure as described in claim 1.

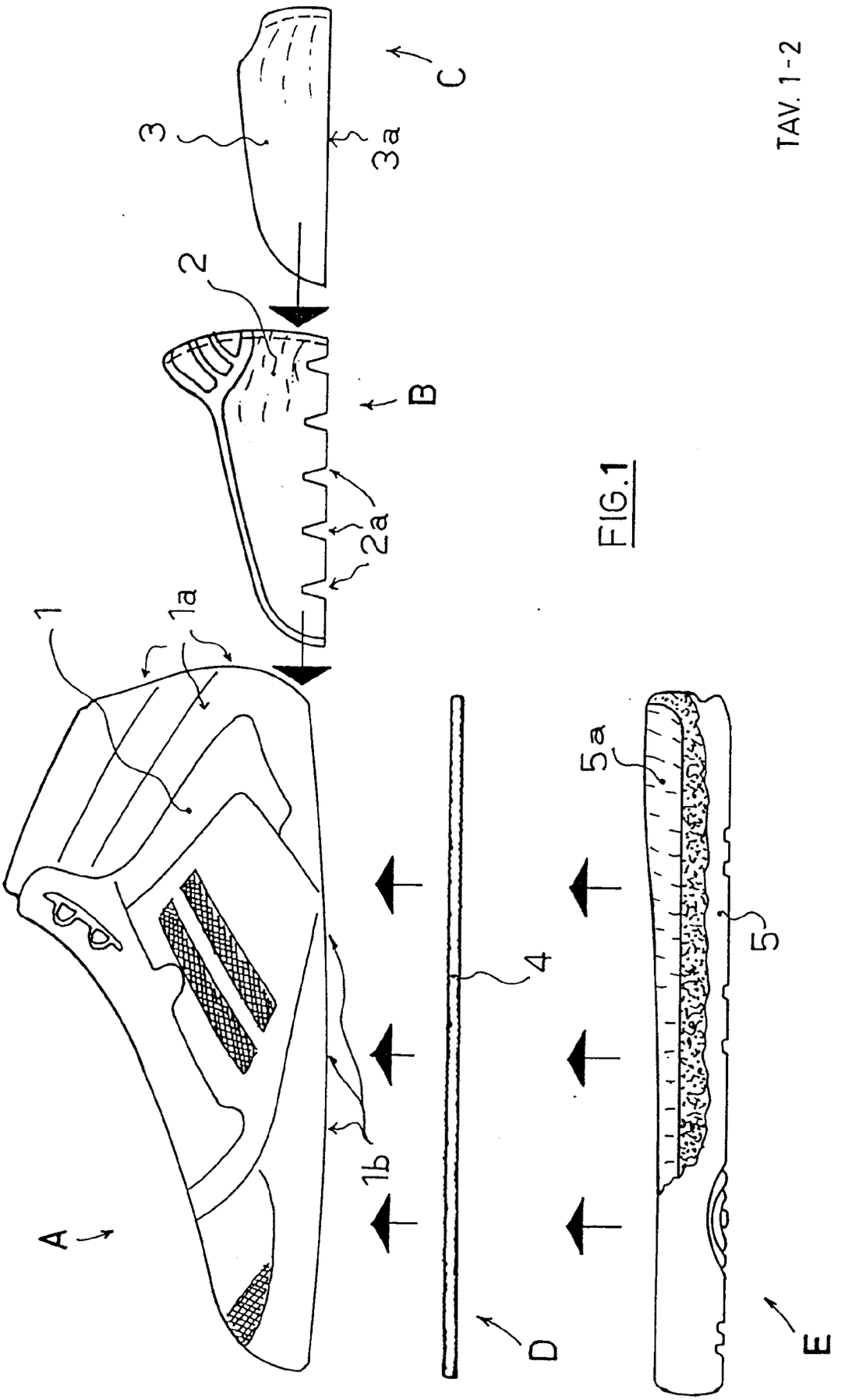

FIG.1

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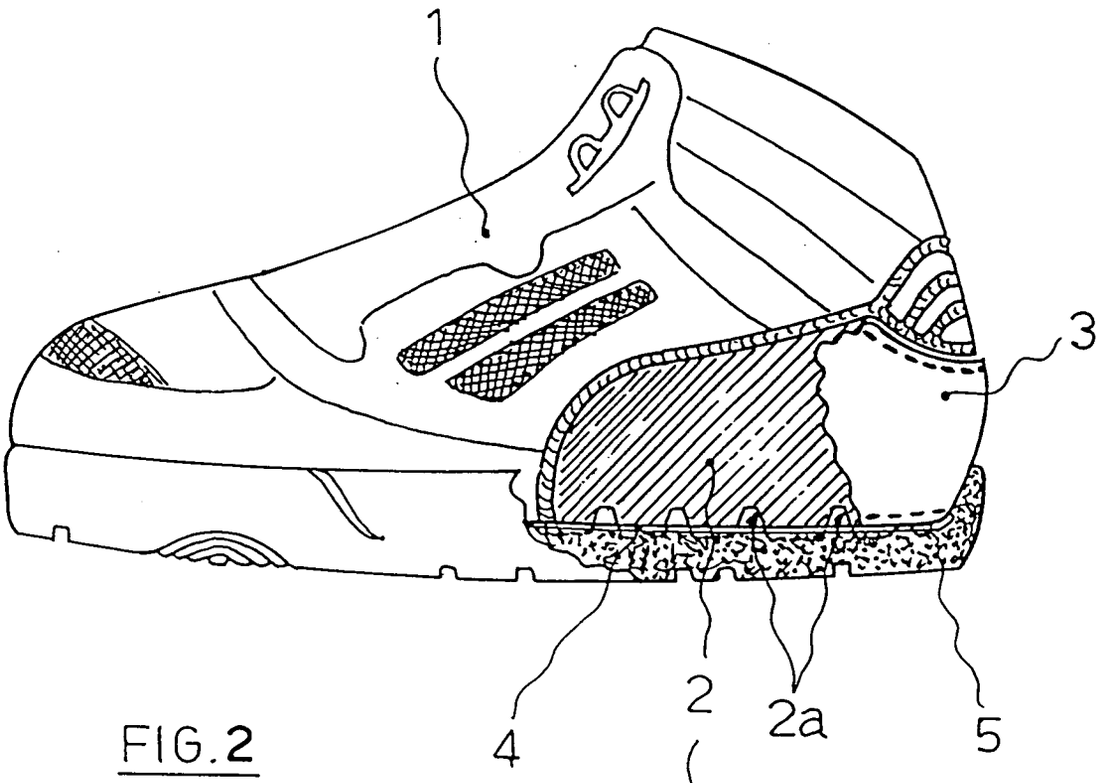
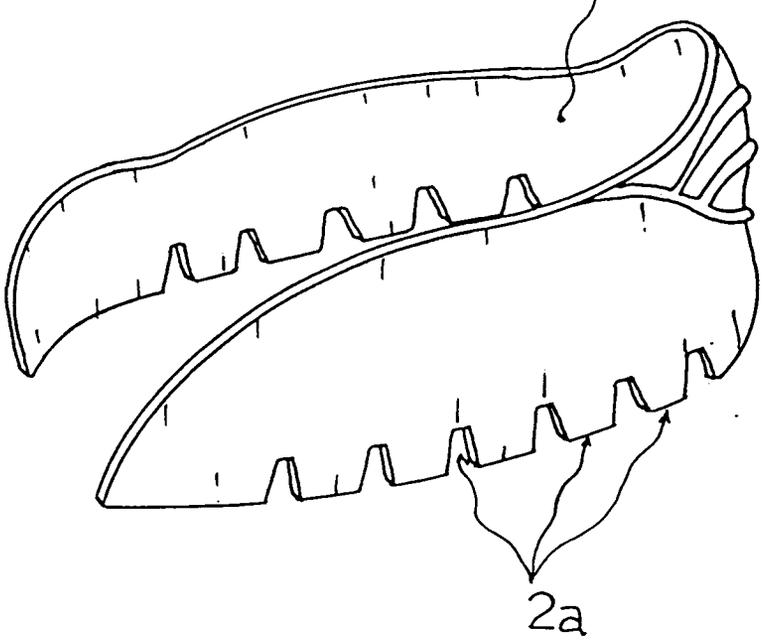


FIG.2



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